

Notice of Allowability

Application No.

09/552,147

Examiner

Anne R. Kubelik

Applicant(s)

KOROL ET AL.

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed 6/1/04.
2. ☒ The allowed claim(s) is/are 1-2, 4, 6, 8-9, 11-16, 31-44, renumbered 1-2, 4-5, 7-16, 18-19, 21-26, 3, 17, 6 and 20, respectively.
3. ☒ The drawings filed on 13 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Sheridan Neimark on 15 June 2004.

IN THE CLAIMS:

In claim 2, line 3, "used in step (a)" was deleted.

In claims 4 and 33, lines 2-3, "prepared in step (a)" was deleted.

Claim 11. (Currently Amended) The method of Claim 1, wherein selection of transformants is [performed] based on the phenotypic expression of a selectable marker gene, wherein the gene confers [said expression being selected from the group consisting of] antibiotic resistance[,] or herbicide resistance[,] on the transformants or affects [and] anthocyanin coloration of the transformants.

In claims 14 and 16, lines 2-3, "is a gene providing resistance to " was replaced with -- encodes--.

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Claim 31 (Currently Amended). A method for genetic transformation of sexually reproducing maize [reproducing sexually], said method comprising the steps of:

- (a) preparing a silicon carbide fiber solution [comprising silicon carbide fibers];
- (b) preparing a pollen germination medium;
- (c) preparing a DNA solution;
- (d) mixing said silicon carbide fiber solution with said pollen germination medium and said DNA solution to form a mixture;
- (e) adding fresh pollen into said mixture to form a paste;
- (f) vortexing said paste for 30 to 60 seconds, thereby producing a vortexed paste;
- (g) applying said vortexed paste [formed in step (f)] on silks of maize plants for pollination; and
- (h) selecting transformants.

Claim 32 (Currently Amended). The method of Claim 31, wherein [said] the silicon carbide fibers of said silicon carbide fiber solution [used in step (a)] are approximately 0.1-20 μm in diameter and 1-250 μm in length.

Claim 37. (Currently Amended) The method of Claim 31, wherein selection of transformants is [performed] based on the phenotypic expression of a selectable marker gene [with a phenotypic expression], wherein the gene confers [said expression being selected from the group consisting of] antibiotic resistance[,] or herbicide resistance[,] on the transformants or affects [and] anthocyanin coloration of the transformants.

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In claim 40, lines 2-3, "is a gene encoding for" was replaced with --encodes--.

IN THE TITLE:

A POLLEN-MEDIATED METHOD FOR [PLANT] TRANSFORMATION OF MAIZE,
TOMATO OR MELON [BASED ON A POLLINATION-FECUNDATION PATHWAY AND
THE PRODUCTS THEREOF]

IN The ABSTRACT:

A genotype-independent method for efficiently carrying out pollen-mediated [gene] transformation of maize, tomato or [monocots] melon is described. The method uses [Using] pollen [which is] pretreated with silicon carbide and [transforming] DNA [coding for specific traits, the method can] to produce transformed plants [exhibiting useful traits,] with high efficiency and reproducibility.

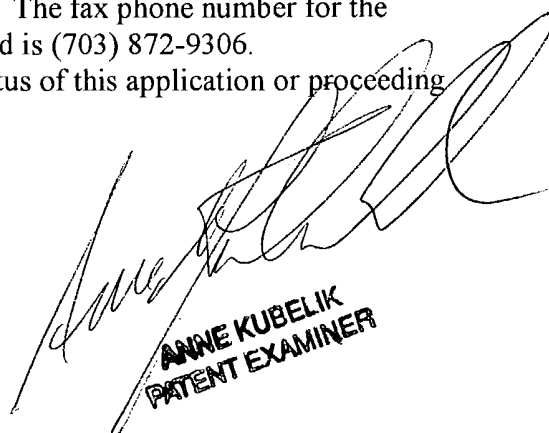
2. Examiner's comment: The amendments to the claims introduced herein do not limit the scope of the claims, and were only made to improve claim clarity.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (571) 272-0804. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (703) 308-0198.

Anne R. Kubelik, Ph.D.
June 15, 2004



ANNE KUBELIK
PATENT EXAMINER